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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,828	03/31/2004	Alfred Tondreau	DMF-227-B	5069

7590 10/04/2007
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EXAMINER

CECIL, TERRY K

ART UNIT	PAPER NUMBER
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1723

MAIL DATE	DELIVERY MODE
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10/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/813,828

Applicant(s)

TONDREAU ET AL.

Examiner

Mr. Terry K. Cecil

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 10-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

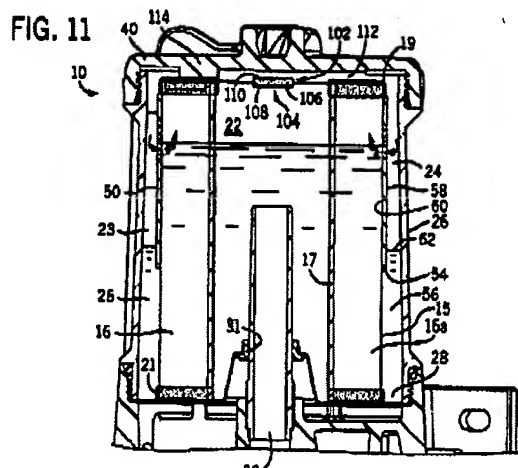
A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 11-12, 14, 21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Prater et al. (U.S. 6,641,742).



Prater discloses a filter apparatus for filtering diesel fuel [as in claim 14] including a vertical, transparent outer housing 26, a filter element disposed between an inlet and an outlet, an upper filter element cover 50 that is completely impervious (col. 6, lines 64-65) and a relief valve 102 in the top of the element. Figure 2 is the same as applicant's figure 11 but without the

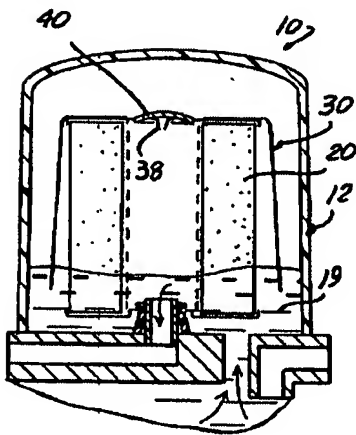
filter element cover and the pressure relief valve. In figure 2 it is readily seen that there exists an inner diameter in the upper portion of the housing that is smaller than an inner diameter in a bottom portion of the housing. The claimed volumes are shown in figure 11. The apparatus is configured such that upon reaching a predetermined differential pressure across the filter element

Art Unit: 1723

the relief opens to allow fluid to flow therethrough. The resulting change in liquid level between the cover and the transparent housing is indicative of the need for filter replacement [as in claims 1 and 11]. The characteristics of the gas on the inlet side of the filter is governed by the ideal gas equation $PV=nRT$ and would necessarily effect the opening of the valve, the level of the fluid , as well as the visual indication [as in claim 11]. As for claims 2 and 12, such can be said to be anticipated by the condition shown in figure 11.

As for claims 21 and 23, the claims do not specify where each of the lower and upper volumes begin and end such that the ratio therebetween is at least 2.7. Therefore, the examiner chooses whatever demarcation between two "volumes" would result in a lower volume being 2.7 times greater than an upper volume.

3. Claim 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Prater in view of



Smith et al. (U.S. 6,841,065). Smith discloses a filter apparatus for filtering diesel fuel or oil [as in claims 17]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the diesel fuel of Prater to oil as in Smith, since Smith teaches using a visual indication of fluid level for determining filter condition in oil filtering environments.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

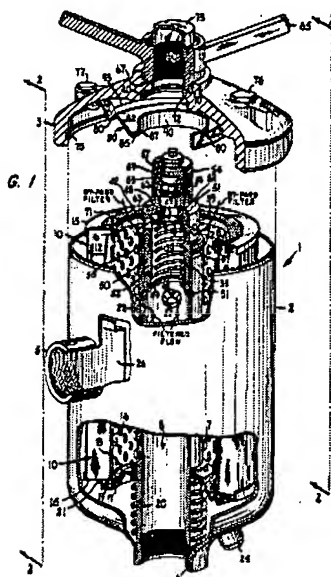
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-2, 11-12 and 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooper (U.S. 3,508,657) in view of Prater. Cooper teaches a filter apparatus for filtering



high pressure oil or fuel fluids including an inlet 5, an outlet 6, a filter element 10, a relief valve for bypass flow and an indicator of bypass flow including a transparent cap 73 at a top of the apparatus. Cooper does not teach an outer cover for the filter nor a configuration wherein the level of fluid in the housing serves as a visual indication that bypass flow has occurred.

As explained above, Prater teaches a filter including an outer cover and transparent housing for determining the opening of a relief valve for bypass flow by visually observing the level of fluid in the housing and the claimed volumes. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of

the invention to have the filter element cover, and transparent housing/visual indicating configuration of either of Prater or Smith, such both teach the benefit of accurately reflecting filter life.

As for claims 15 and 18, concerning the P of the fluid such is considered to be obvious depending upon the system in which the filter is to operate, as well as the “preset” pressure differential value in which the relief valve is to open. As for claims 16 and 19, since the ideal gas equation $PV=nRT$ is well known to the skilled man, merely determining the V of the air pocket necessary for the fluid level indication is within ordinary skill by solving the equation for V.

Claims 2 and 12 are obvious depending upon the desired operating pressure (which depends upon the system in which the filter will be used) and necessary volume for fluid level indication.

6. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prater in view of Jiang et al. (U.S. 6,939,464 B1).

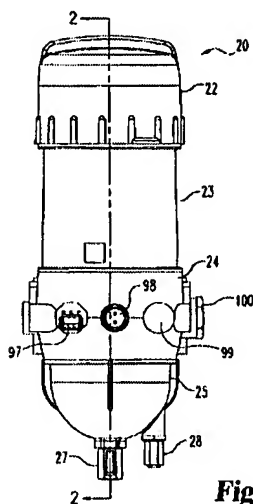


Fig. 1

Jiang teaches ribs on the outer surface of his housing cover [as in claims 3 and 13]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to such ribs on the outer housing surface of Prater since such would increase friction when producing a rotating motion to remove or replace the

cover. The covers of Prater and Jiang include threads. The structure of the ribs would inherently provide support to the part of the housing covered thereby.

7. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prater in view of Robinson et al. (U.S. 6,039,030). These claims have the limitation of a thermocouple coupled to the relief valve. Robinson teaches a shape memory alloy thermocouple spring for affecting the control of a valve in response to temperature [as in claims and 20]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the spring of Robinson coupled to the relief valve of Prater, since such would prevent premature indication of a clogged filter when pressure temporarily increases because of higher viscosity of fluid flow.

8. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prater. The claimed clearance values is considered to be obvious to the skilled man depending upon the volumetric capacity of the system in which the device is to be used; the operating pressure, the design pressure whereat the relief valve will open. See *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

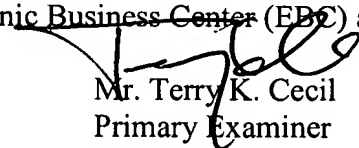
Response to Arguments

9. Applicant's arguments filed 8-2-2007 have been fully considered but they are not persuasive because of the following reasons:

- Although the outer housing of Prater discloses a continuously changing inner diameter (top to bottom) and not areas of constant inner diameter, Prater still discloses the claims. It is also pointed out that the claims do not specify where each of the lower and upper volumes begin.

10. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- David R. Sample, the examiner's supervisor can be reached on 571-272-1376, if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is (571) 273-8300.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mr. Terry K. Cecil
Primary Examiner
Art Unit 1723

TKC
September 30, 2007